

AMENDMENTS TO THE CLAIMS

1. - 23. (Cancelled)

24. (New) An optical communications network, comprising:

an express network including express communication path segments operatively interconnected and communicating a wavelength division multiplexed signal having a plurality of express data wavelengths including a first and a second express data wavelength;

a feeder network including feeder communication path segments operatively interconnected;

a plurality of express/feeder optical add-drop multiplexers each having optical add/drop pathways operatively interconnecting respective communication path segments of said express network and said feeder network, said express/feeder optical add-drop multiplexers having express pathways operatively interconnecting respective express communication path segments to form said express network;

a first group of feeder add-drop multiplexers operatively connected to a first one of the feeder communication path segments, wherein each of the feeder add-drop multiplexers of the first group successively adds data to a first feeder data carried on a first feeder wavelength;

a second group of feeder add-drop multiplexers operatively connected to a second one of the feeder communication path segments, wherein each of the feeder add-drop multiplexers of the second group successively adds data to a second feeder data carried on a second feeder wavelength;

a first one of said express/feeder optical add-drop multiplexers transferring the first feeder data from the first feeder communication path segment to a first one of the express data wavelengths via a first transceiver which remodulates the first feeder wavelength to the first express data wavelength; and

a second one of said express/feeder optical add-drop multiplexers transferring the second feeder data from the second feeder communication path segment to a second one of the express data wavelengths via a second transceiver which remodulates the second feeder wavelength to the second express data wavelength.

25. (New) The optical communications network according to claim 24,
wherein the first express/feeder optical add-drop multiplexer transfers the first express data wavelength to the first feeder wavelength via the first transceiver which remodulates the first express data wavelength to the first feeder wavelength.

26. (New) The optical communications network according to claim 24,
wherein the second express/feeder optical add-drop multiplexer transfers the second express data wavelength to the second feeder wavelength via the second transceiver which remodulates the second express data wavelength to the second feeder wavelength.

27. (New) The optical communications network according to claim 24, wherein said express network is a ring network.

28. (New) The optical communications network according to claim 24, wherein said feeder network is a ring network.

29. (New) The optical communications network according to claim 24, wherein the first express data wavelength uniquely carries the first feeder data in the express network.

30. (New) The optical communications network according to claim 24, wherein the first express data wavelength is reassigned to and carries a third feeder data in the express network.

31. (New) The optical communications network according to claim 24, wherein each of said plurality of express/feeder optical add-drop multiplexers includes a synchronous optical network (SONET) add/drop multiplexer.

32. (New) An optical communications network, comprising:

- an express network including express communication path segments operatively interconnected and communicating a wavelength division multiplexed signal having a plurality of express data wavelengths including a first and a second express data wavelength;
- a feeder network including feeder communication path segments operatively interconnected;
- a plurality of express/feeder optical add-drop multiplexers each having optical add/drop pathways operatively interconnecting respective communication path segments of said express network and said feeder network, said express/feeder optical add-drop multiplexers having express pathways operatively interconnecting respective express communication path segments to form said express network;
- a first of said express/feeder optical add-drop multiplexers transferring the first express data wavelength to a first feeder wavelength via a first transceiver which remodulates the first express data wavelength to a first feeder wavelength;

a second of said express/feeder optical add-drop multiplexers transferring the second express data wavelength to a second feeder wavelength via a second transceiver which remodulates the second express data wavelength to a first feeder wavelength;

a first group of feeder add-drop multiplexers operatively connected to a first one of the feeder communication path segments, wherein each of the feeder add-drop multiplexers of the first group receives the transferred first feeder wavelength and successively drops data from a first feeder data carried on the first feeder wavelength; and

a second group of feeder add-drop multiplexers operatively connected to a second one of the feeder communication path segments, wherein each of the feeder add-drop multiplexers of the second group receives the transferred second feeder wavelength and successively drops data from a second feeder data carried on the second feeder wavelength.

33. (New) The optical communications network according to claim 32, wherein said express network is a ring network.

34. (New) The optical communications network according to claim 32, wherein said feeder network is a ring network.

35. (New) The optical communications network according to claim 32, wherein the first express data wavelength uniquely carries the first feeder data in the express network.

36. (New) The optical communications network according to claim 32, wherein the first express data wavelength is reassigned to and carries a third feeder data in the express network.

37. (New) The optical communications network according to claim 32, wherein each of said plurality of express/feeder optical add-drop multiplexers includes a synchronous optical network (SONET) add/drop multiplexer.